

Case Docket No. SEPP21.001C1

Date: February 3, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant

Tois et al.

App. No.

10/678,766

Filed

: October 2, 2003

For

METHOD OF GROWING

OXIDE THIN FILMS

Examiner

Unknown

Group Art Unit:

1765

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

February 3, 2004

Andrew N. Merickel, Reg. No. 53,317

TRANSMITTAL LETTER

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 listing seventeen (17) references that are not enclosed.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Andrew N. Merickel Registration No. 53,317 Attorney of Record Customer No. 20,995 (415) 954-4114

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Docket No.: SEPP21.001C1

INFORMATION DISCLOSURE STATEMENT

Tois et al.

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 17 references that are of record in U.S. patent application No. 10/148,525, filed August 27, 2002, which is the parent of this continuation application, and is relied upon for an earlier filing date under 35 U.S.C. § 120. Copies of the references are not submitted pursuant to 37 C.F.R. § 1.98(d).

This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Andrew N. Merickel

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Attorney of Record Customer No. 20,995

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FORM PTO-1449

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U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

| 70.5 | SHEET 1 OF |
|-------------------------------|-------------------------------|
| ATTY. DOCKET NOT SEPP21.001C1 | APPLICATION NO. 10/678,766 |
| FEB 8 9 7004 12 35 | |
| APPLICANT TOIS et al. | |
| FILING DATE | GROUP |

1765

| | | | | U.S. PATENT DOCUMENTS | | | |
|---------------------|----|-----------------|----------|-----------------------|-------|----------|---------------------------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE (IF APPROPRIATE) |
| | 1. | 5,480,818 | 01/02/96 | Matsumoto et al. | 437 | 40 | 02/09/93 |
| | 2. | 6,006,763 | 12/28/99 | Mori et al. | | | |

October 2, 2003

| | | | | FOREIGN PATENT DOCUMENTS | | | | |
|----------|----|-----------------|----------|--------------------------|-------|----------|-------------|----|
| EXAMINER | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
| INITIAL | | | | | | | YES | NO |
| | 3. | JP 3286531 A2 | 12.17.91 | Japan Abstract | | | | |
| | 4. | JP 60065712 A2 | 04.15.85 | Japan Abstract | | | - !** | |

| EXAMINER INITIAL | OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.) | | | | | |
|------------------|--|---|--|--|--|--|
| | 5 | Klaus, J. W. et al., "Atomic Layer Deposition of SiO ₂ Using Catalyzed and Uncatalyzed Self-Limiting Surface Reactions," <u>Surface Review and Letters</u> , Vol. 6, Nos. 3 & 4, pp. 435-448 (1999). | | | | |
| | 6 | Niinistö, L. et al., "Synthesis of oxide thin films and overlayers by atomic layer epitaxy for advanced applications," Materials Science and Engineering, B41 pp. 23-29 (1996). | | | | |
| - | 7. | Wise, M. L. et al., "Diethyldiethoxysilane as a New Precursor for SiO ₂ Growth on Silicon," Mat. Res. Soc. Symp. Proc., Vol. 334, pp. 37-43 (1994). | | | | |
| | 8 | Yamaguchi, Kei-ichi et al., "Atomic-layer chemical-vapor-deposition of silicon dioxide films with an extremely low hydrogen content,", Appl. Surf. Science, 130-132; pp. 202-207 (1998) | | | | |
| - | 9 | George, S.M., et al., "Surface Chemistry for Atomic Layer Growth," J. Phys. Chem., 100:13121-13131 (1996) | | | | |
| | 10 | George, S.M. et al., "Atomic layer controlled deposition of SiO2 and Al2O3 using ABAB binary reaction sequence chemistry," Appl. Surf. Science, 82/83:460-467 (1994) | | | | |
| | 11 | Jeon, H., "A Study on the Characteristics of TiN Thin Film Deposited by Atomic Layer Chemical Vapor Deposition Method," AVS 46 th International Symposium, Seattle, WA, abstract TF-MoP17 (1999) | | | | |
| | 12 | Jeon, H., et al., "A Study on the Characteristics of TiN Thin Film Deposited by Atomic Layer Chemical Vapor Deposition Method," J. Vac . Sci. Technol. A, 18(4), 1595-1598 (2000) | | | | |
| | 13 | Klaus, J.W., et al., "Atomically controlled growth of tungsten and tungsten nitride using sequential surface reactions," Appl. Surf. Science 162-163; 479-47 (2000) | | | | |
| | 14 | Klaus, J.W., et al., "Atomic layer deposition of tungsten nitride films using sequential surface reactions," Journal of the Electrochemical Soc., 147 (3):1175-1181 (2000) | | | | |
| | 15 | Klaus, J.W. et al., "Atomic layer deposition of tungsten using sequential surface chemistry with a sacrificial stripping reaction," Thin Solid Films, 360:145-153 (2000)n | | | | |
| | 16 | Klaus, J.W., et al., "Atomic layer deposition of tungsten and tungsten nitride using sequential surface reactions," AVS 46 th International Symposium, Seattle, WA, abstract TF-TuM6 (1999) | | | | |
| - | 17. | Riihelä, D. et al., "Introducing atomic layer epitaxy for the deposition of optical thin films," Thin Solid Films, Vol. 289, pp. 250-255 (1996). | | | | |

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EXAMINER DATE CONSIDERED

*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.